Before the

Federal Communications Commission

Washington, D.C. 20554

In the Matter of	)	
	)	
DELETE, DELETE, DELETE	)	GN Docket No. 25-133
	)	

Comments of Dr. Richard Roy

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Founder
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Date: 11 April 2025

1 Introduction

My name is Dr. Richard Roy, and I am filing these comments on my own behalf under GN Docket 25-133 in response to Public Notice DA 25-219. For the last 25 years I have been and continue to be a consultant to stakeholders in Intelligent Transport Systems (ITS) standardization and development, and bring my nearly half-century of experience in some form or another in wireless telecommunications to the challenge of improving the safety and efficiency of transportation systems around the world, and most importantly in the US.

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In Public Notice DA 25-219, the FCC seeks comment from the public on current FCC rules that could be eliminated, noting that "*unnecessary rules may stand in the way of deployment, expansion, competition, and technological innovation in communications that the Commission is directed to advance. Government-wide administrative law requires review of rules to ensure that unnecessary—or affirmatively detrimental—rules are not retained.*"

In the proceedings under FCC Docket 19-138, the FCC adopted two rulemakings in the following Report and Orders (R&Os):

1) Federal Register / Vol. 86, No. 83 / Monday, May 3, 2021 / Rules and Regulations (23281)
2) Federal Register / Vol. 89, No. 240 / Friday, December 13, 2024 / Rules and Regulations (100838)

These two sets of rules are "*affirmatively detrimental*" and should "*not be retained*".

3 Summary of the Content of Filings on Record in Docket 19-138

In the First R&O in proceeding 19-138, the FCC reallocated 45 MHz (5.850-5.895 GHz) of ITS spectrum (5.850-5.825 GHz) that had been allocated to ITS safety and efficiency services, to use by unlicensed devices (with some restrictions). The FCC allowed ITS services to retain their co-primary allocation in the upper 30 MHz band segment (5.895-5.925 GHz) of the 5.9 GHz band, and proposed allocating 10 MHz to DSRC technology and 20 MHz to C-V2X technology. In the R&O, the Commission contended that:

1. ITS stakeholders have been too slow in deploying technology.
2. ITS spectrum can be put to more effective use by unlicensed devices.
3. 30 MHz of spectrum is more than enough for ITS safety and efficiency.
4. Many if not all ITS safety and efficiency services can be offered over other spectrum (e.g. cellular).
5. There is no need to protect ITS safety and efficiency spectrum from Out-Of-Band-Emissions (OOBE).
6. C-V2X is a preferred technology for delivering ITS safety and efficiency services and should be allocated 20 MHz of spectrum for such services.

The vast majority of the filings were opposed to the NPRM that led to the First R&O and they made one or more of the following points:

1. ITS stakeholders have been deploying ITS safety and efficiency services in the entire ITS spectrum, and would have done so years ago had the NHTSA NPRM mandating deployment in vehicles in 2019 not been stalled by the proponents of this NPRM.
2. The benefits of using ITS spectrum for ITS safety and efficiency have been estimated to astronomically outweigh those benefits accruing from use by unlicensed devices.
3. 30 MHz of spectrum is not sufficient for ITS safety and efficiency service to achieve their maximum benefit, something which the FCC is chartered to deliver to the public.
4. Few if any ITS safety and efficiency services can be offered over other spectrum allocated to commercial service (e.g. cellular), because cellular systems demonstrably cannot provide the necessary guarantees of adequate performance.
5. It is of paramount importance to protect ITS safety and efficiency spectrum from Out-Of-Band-Emissions (OOBE).
6. C-V2X is a demonstrably inferior technology for delivering ITS safety and efficiency services and should not be allocated any spectrum for such services.

The following table summarizes the economic and societal benefits as noted in several filings on record including FCC-CIRC2011-01:

Benefit to the public	**Unlicensed use**	**ITS use**
Annual Economic Benefit	$82.2 – 189.9 billion	> $940 billion
Annual Reduction in Fatalities	-	1,321 (initially) 40,000 (ultimately)
Annual Reduction in Crashes	-	594,000 (initially)

		2 million (ultimately)
Annual Reduction in Traffic Delays	-	280 million hours
Annual Climate Benefits	-	400,000 tons of CO_2

In the Second R&O under Docket 19-138, the FCC:

1) sunset DSRC over the next two years by removing all mention of it in the CFRs, retaining only OOBE and transmit power limits for use in the 30 MHz of ITS spectrum remaining, and
2) declined to mandate the use of any specific technology stating that they would leave it to the "industry to decide", apparently assuming that the industry would "decide" on C-V2X as the only technology to be deployed as there are no other candidates currently being considered.

Very importantly, no consideration was given to the fact that deployment of this critical communication technology in personal devices would far exceed that in vehicles, and that such deployments would be essential to save the lives of pedestrians and cyclists among others. Of particular note is the fact that the DSRC technology that was sunset is already in most smart phones deployed to date which means that those phones could be reprogrammed to participate in ITS life-saving services!

The following table summarizes a few of the numerous important facts concerning suitability of DSRC technology over the assumed C-V2X technology to provide ITS safety and efficiency services as presented in filings on record:

Communication Requirements for V2X ITS Safety and Efficiency Services	**DSRC**	**C-V2X**
Information carrying capacity remains optimal constant in stressful scenarios	**YES**	**NO**
Designed to efficiently handle messages of varying sizes	**YES**	**NO**
Allow peer-to-peer sessions	**YES**	**NO**
Communications can be carried out without time synchronization of all devices	**YES**	**NO**

The vast majority of the filings opposing the R&Os adopted under Docket 19-138 made it perfectly clear that the FCC made arbitrary and capricious decisions based on a lack of sufficient information and concluded that the

Commission should not have adopted either rulemaking in the best interests of the American public.

4 Conclusion

The rules adopted in the First and Second R&O under Docket 19-138 should “not be retained”. Instead, the rules for use of the 5.850 – 5.925 GHz band should revert to the rules adopted prior to 2016. The benefit to the US economy approaches a trillion dollars annually and thousands of lives will be saved.